

Claims

We claim:

1. A method for copying a portion of a database structure, the database including one or more database objects, the method comprising
 - 5 recursively retrieving object definitions for one or more database objects associated with a query to produce an ordered set of object definitions;
 - building a copy of the database structure using the ordered set of object definitions.
2. The method of claim 1, where recursively retrieving object definitions includes
 - 10 recursively identifying objects associated with the query;
 - categorizing each identified object into a category;
 - retrieving an object definition for each identified object using a tool corresponding to the category with which the identified object is connected.
3. The method of claim 2, where the categories include tables, views, join indexes, triggers and macros.
4. The method of claim 2, where the tool is
 - 15 a. a SHOW VIEW statement if the identified object is categorized as a view;
 - b. a SHOW TABLE statement if the identified object is categorized as a table;
 - c. a SHOW JOIN INDEX statement if the identified object is categorized as a join index;
 - d. a SHOW TRIGGER statement if the identified object is categorized as a trigger;
 - 20 e. a SHOW MACRO statement if the identified object is categorized as a macro.
5. The method of claim 1, where recursively retrieving object definitions includes
 - a. retrieving unretrieved object definitions for a set of objects known to be associated with the query;
 - b. adding to the set of objects known to be associated with the query those objects contained in
 - 25 the retrieved object definitions that are not already in the set of objects known to be associated with the query;
 - c. repeating items a and b until no new objects are added to the set of objects known to be associated with the query.

6. The method of claim 1, further comprising sending the ordered set of object definitions from a first computer to a second computer.

7. The method of claim 1, further comprising changing the order of the ordered set of object definitions.

5 8. The method of claim 7, where changing the order of the ordered set of object definitions includes reordering the object definitions so that each object definition is ordered before the definition of any object that references it.

9. The method of claim 1, where the object definitions are ordered so that each object definition is ordered before the definition of any object that references it.

10 10. The method of claim 1, where recursively retrieving object definitions for one or more database objects includes looking for references to the one or more database objects in a data dictionary.

11. A computer-readable medium containing computer-executable code for instructing a computer to:

recursively retrieve object definitions for one or more database objects associated with a query
to produce an ordered set of object definitions;
build a copy of the database structure using the ordered set of object definitions.

12. The computer-executable code of claim 11, in which, when recursively retrieving object definitions, the computer:

recursively identifies objects associated with the query;
20 categorizes each identified object into a category;
retrieves an object definition for each identified object using a tool corresponding to the
category with which the identified object is connected.

13. The computer-executable code of claim 12, where the categories include tables, views, join indexes, triggers and macros.

14. The computer-executable code of claim 12, where the tool is
- a. a SHOW VIEW statement if the identified object is categorized as a view;
 - b. a SHOW TABLE statement if the identified object is categorized as a table;
 - c. a SHOW JOIN INDEX statement if the identified object is categorized as a join index;
 - 5 d. a SHOW TRIGGER statement if the identified object is categorized as a trigger;
 - e. a SHOW MACRO statement if the identified object is categorized as a macro.
15. The computer-executable code of claim 11, in which, when recursively retrieving object definitions, the computer:
- a. retrieves unretrieved object definitions for a set of objects known to be associated with the
 - 10 query;
 - b. adds to the set of objects known to be associated with the query those objects contained in the retrieved object definitions that are not already in the set of objects known to be associated with the query;
 - c. repeats items a and b until no new objects are added to the set of objects known to be associated with the query.
16. The computer-executable code of claim 11, further comprising computer-executable code instructing the computer to send the object definitions from a first computer to a second computer.
17. The method of claim 11, further comprising computer-executable code instructing the computer to change the order of the ordered set of object definitions.
18. The computer-executable code of claim 17, in which, when changing the order of the ordered set of object definitions, the computer reorders the object definitions so that each object definition is ordered before the definition of any object that references it.
19. The computer-executable code of claim 11, in which, when storing the definitions, the computer stores the definitions so that each object definition is ordered before the definition of any object that
- 25 references it.

20. The computer executable code of claim 11, in which, when recursively retrieving object definitions for one or more database objects, the computer looks for references to the one or more database objects in a data dictionary.

21. A package of data useful in building a copy of a database structure generated in accordance with the following act:

recursively retrieving object definitions for one or more database objects associated with a query to produce an ordered set of object definitions.

22. The package of data of claim 21, where the object definitions are recursively retrieved in accordance with the following acts:

recursively identifying objects associated with the query;

categorizing each identified object into a category;

retrieving an object definition for each identified object using a tool corresponding to the category with which the identified object is connected.

23. The package of data of claim 22, where the categories include tables, views, join indexes, triggers and macros.

24. The package of data of claim 22, where the tool is

a. a SHOW VIEW statement if the identified object is categorized as a view;

b. a SHOW TABLE statement if the identified object is categorized as a table;

c. a SHOW JOIN INDEX statement if the identified object is categorized as a join index;

d. a SHOW TRIGGER statement if the identified object is categorized as a trigger;

e. a SHOW MACRO statement if the identified object is categorized as a macro.

25. The package of data of claim 21, where the object definitions are recursively retrieved in accordance with the following acts:

a. retrieving unretrieved object definitions for a set of objects known to be associated with the query;

5 b. adding to the set of objects known to be associated with the query those objects contained in the retrieved object definitions that are not already in the set of objects known to be associated with the query;

c. repeating items a and b until no new objects are added to the set of objects known to be associated with the query.

10 26. The package of data of claim 21, further comprising the act of sending the ordered set of object definitions from a first computer to a second computer.

27. The package of data of claim 21, further comprising the act of instructing the computer to change the order of the ordered set of object definitions.

28. The package of data of claim 27, where the act of changing the order of the ordered set of object definitions includes reordering the object definitions so that each object is ordered before the definition of any object that references it.

29. The package of data of claim 21, where the act of storing object definitions includes storing the object definitions so that each object definition is ordered before the definition of any object that references it.

20 30. The package of data of claim 21, where the act of recursively retrieving object definitions for one or more database objects includes looking for references to the one or more database objects in a data dictionary.